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COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

Claim 1 (currently amended): A sound control apparatus provided in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, comprising:

a storage section that stores music information representing a music tone and configuration information associated to a timbre of the music tone, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are a part of parameters involved in a standard MIDI file format;

C' an information acquiring section that acquires the music information and the configuration information from the storage section upon receipt of the telephone call by the portable terminal; and

a tone generating section that is configured by the acquired configuration information to create a timbre specified by the configuration information, and that operates according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre, thereby providing the ringing melody;

wherein the tone generating section is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

Claim 2 (currently amended): The sound control apparatus according to claim 1, wherein the storage section has a limited capacity such as to store the music information containing data in a volume smaller than a total volume of data involved in the standard MIDI file format in a compact format which is downsized from a non-compact format of the music information before storage of the music information.

Claim 3 (currently amended): The sound control apparatus according to claim 1 ~~claim 2~~, wherein the storage section has a limited capacity such as to store the configuration information containing parameters of selected kinds which are smaller than whole kinds of the parameters involved in the standard MIDI file format ~~stores the music information in a compact format which is downsized from a non-compact format of a standard MIDI file.~~

Claim 4 (original): The sound control apparatus according to claim 1, wherein the storage section stores the music information and the configuration information, which are downloaded from a base station having a database of the music information and the configuration information.

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Claim 5 (original): The sound control apparatus according to claim 1, wherein the storage section stores the music information and the configuration information, which are retrieved from a personal computer having a source of the music information and the configuration information.

Claim 6 (original): The sound control apparatus according to claim 1, wherein the storage section stores the music information and the configuration information, which are transmitted from another portable terminal.

Claim 7 (original): The sound control apparatus according to claim 1, wherein the storage section stores the music information and the configuration information, which are loaded from a memory medium attachable to the portable terminal.

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Claim 8 (canceled)

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Claim 9 (original): The sound control apparatus according to claim 1, further comprising a connector that is detachably connectable to a memory medium memorizing the music information and the configuration information.

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Claim ~~10~~ (currently amended): The sound control apparatus according to claim 1, wherein the portable terminal has an audio controller for controlling a talking voice exchanged during the telephony operation of ~~telecommunication~~, the sound control apparatus further comprising a mixer that mixes the talking voice passed from the audio controller and the music tone generated by the tone generator section with each other.

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Claim ~~11~~ (currently amended): A sound control apparatus provided in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, comprising:

C1 a storage section that stores music information representing a music tone and configuration information associated to a timbre and an effect of the music tone, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are a part of parameters involved in a standard MIDI file format;

an information acquiring section that acquires the music information and the configuration information from the storage section upon receipt of the telephone call by the portable terminal;

a tone generating section that is configured by the acquired configuration information to create a timbre specified by the configuration information, and that operates according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre; and

an effector section that is configured by the configuration information for applying an effect specified by the configuration information to the generated music tone, thereby providing the ringing melody;

wherein the tone generating section is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

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Claim ~~12~~ (currently amended): A sound control apparatus provided in a portable terminal, having a first processor and a system bus, for sounding a music tone in association with various operations of the portable terminal, including a telephony operation and a display operation, which are executed by the first processor, the sound control apparatus comprising:

a memory that memorizes music information representing a music tone and configuration information associated to a timbre of the music tone;

a communication interface connectable to the system bus of the portable terminal such that the memory can receive the music information and the configuration information transmitted from an external source through the system bus and the communication interface;

C an information acquiring section that acquires the music information and the configuration information from the memory;

a tone generating section that is configured by the acquired configuration information to create a timbre specified by the configuration information, and that operates according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre wherein the tone generating section is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

a second processor provided separately from the first processor for controlling the memory, the communication interface, the information acquiring section and the tone generating section.

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Claim ~~13~~ (original): The sound control apparatus according to claim ¹³~~12~~, wherein the first processor comprises a main CPU of the portable terminal, and the second processor comprises a dedicated CPU for processing the music information and the configuration information.

[Claim 14 (canceled)

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Claim 15 (original): The sound control apparatus according to claim ¹³~~12~~, wherein the portable terminal has input controls for inputting a command, the sound control apparatus further comprises an edit section operative according to the command from the input controls for editing the music information stored in the memory.

Claim ¹⁶~~16~~ (currently amended): The sound control apparatus according to claim ¹³~~12~~, wherein the portable terminal has an audio controller for controlling a talking voice exchanged during the telephony operation of telecommunication, and the ~~sound control apparatus further comprising~~ a communication interface is connectable to the audio controller for receiving the talking voice so that the second processor can process the talking voice.

Claim 17 (original): The sound control apparatus according to claim 16, wherein the second processor can process the talking voice to apply thereto a desired acoustic effect.

Claim 18 (original): The sound control apparatus according to claim 16, wherein the second processor can process the talking voice to modify a pitch and a timbre of the talking voice.

Claim 19 (original): The sound control apparatus according to claim ¹³~~12~~, further comprising a timer for periodically generating a timing signal effective to control a generating timing of the music tone so as to determine a performance tempo of the generated music tone, the timing signal being manually settable to control the performance tempo.

Claim 20 (original): The sound control apparatus according to claim ¹³~~12~~, further comprising another memory for storing a conversion table used for converting a format of the music information.

Claim 21 (original): The sound control apparatus according to claim ¹³~~12~~, further comprising another memory for storing a compression table used for compressing the music information stored in the memory.

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Claim 22 (currently amended): The sound control apparatus according to claim ~~12~~¹³, wherein the portable terminal has an audio controller for controlling a talking voice exchanged during the telephony operation ~~of telecommunication, and the sound control apparatus further comprising a communication interface~~ is connectable to the audio controller, and the apparatus further comprising a mixer that mixes the talking voice passed from the audio controller through the communication interface with the music tone generated by the tone generator section.

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Claim 23 (original): The sound control apparatus according to claim ~~12~~¹³, wherein the memory has a limited capacity such as to store the music information in a compact format which is downsized from a non-compact format of the music information before storage of the music information.

Claim 24 (original): The sound control apparatus according to claim 23, wherein the memory stores the music information in a compact format which is downsized from a non-compact format of a standard MIDI file.

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Claim 25 (original): The sound control apparatus according to claim ~~12~~¹³, wherein the memory stores the music information and the configuration information, which are downloaded from a base station having a database of the music information and the configuration information.

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Claim 26 (original): The sound control apparatus according to claim ~~12~~¹³, wherein the memory stores the music information and the configuration information, which are retrieved from a personal computer having a source of the music information and the configuration information.

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Claim 27 (original): The sound control apparatus according to claim ~~12~~¹³, wherein the memory stores the music information and the configuration information, which are transmitted from another portable terminal.

Claim 28 (original): The sound control apparatus according to claim ¹³~~12~~, wherein the memory stores the music information and the configuration information, which are loaded from a recording medium attachable to the portable terminal.

[Claim 29 (canceled)

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Claim ~~30~~ (currently amended): A sound control apparatus provided in a portable terminal, having a first processor and a system bus, for sounding a music tone in association with various operations of the portable terminal, including a telephony operation and a display operation, which are executed by the first processor, the sound control apparatus comprising:

C a memory that memorizes music information representing a music tone and configuration information associated to a timbre and an effect of the music tone;

a communication interface connectable to the system bus of the portable terminal such that the memory can receive the music information and the configuration information transmitted from an external source through the system bus and the communication interface;

an information acquiring section that acquires the music information and the configuration information from the memory;

a tone generating section that is configured by the acquired configuration information to create a timbre and an effect specified by the configuration information, and that operates according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre and the effect wherein the tone generating section is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

a second processor provided separately from the first processor for controlling the memory, the communication interface, the information acquiring section and the tone generating section.

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Claim ~~31~~³⁰ (currently amended): The sound control apparatus according to claim ~~30~~²⁹, wherein the portable terminal has an audio controller for controlling a talking voice exchanged during the telephony operation of ~~telecommunication~~, and the sound control apparatus further comprising a communication interface is connectable to the audio controller, the apparatus further comprising an effector that applies the effect applied to the music tone according to the configuration information and applies an effect to the talking voice received from the audio controller through the communication interface, and a mixer that mixes the talking voice applied with the effect and the music tone also applied with the effect.

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Claim ~~32~~³¹ (original): A portable terminal apparatus comprising:
a communication device that transmits and receives various information;
a memory that stores various information including music information representative of a music tone, configuration information associated to a timbre of the music tone, and voice information representative of a speech voice;

a sound control device that is configured according to the configuration information for generating the music tone according to the music information with the timbre specified by the configuration information; and

an audio device that processes the voice information stored in the memory for reproducing the speech voice represented by the voice information.

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Claim ~~33~~³² (original): The portable terminal apparatus according to claim ~~32~~³¹, wherein the memory has a limited capacity such as to store the music information in a compact format which is downsized from a non-compact format of the music information before storage of the music information.

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Claim ~~34~~³³ (original): The portable terminal apparatus according to claim ~~33~~³², wherein the memory stores the music information in a compact format which is downsized from a non-compact format of a standard MIDI file.

Claim 35 (currently amended): A portable terminal apparatus comprising:
a communication device that transmits and receives various information including a telephone call from a telephone set;

a memory that stores various information including music information representative of a music tone, configuration information associated to a timbre of the music tone, and picture information representative of a visual image wherein the memory stores the music information in a compact format which is downsized from a non-compact format of a standard MIDI file;

a sound control device that is configured according to the configuration information for generating the music tone according to the music information with the timbre specified by the configuration information; and

a video device that processes the picture information stored in the memory upon receipt of the telephone call by the communication device for reproducing the visual image represented by the picture information.

Claim 36 (currently amended): The portable terminal apparatus according to claim ³⁵~~35~~, wherein the ~~memory has a limited capacity such as to store the music information in a compact format which is downsized from a non-compact format of the music information before storage of the music information.~~

Claim 37 (canceled)

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Claim 38 (original): A portable terminal apparatus comprising:

- a communication device that transmits and receives various information;
- a memory that stores various information including music information representative of a music tone, configuration information associated to a timbre and an effect of the music tone, voice information representative of a speech voice, and picture information representative of a visual image;
- a sound control device that is configured according to the configuration information for generating the music tone according to the music information with the timbre and the effect specified by the configuration information;
- an audio device that processes the voice information stored in the memory for reproducing the speech voice represented by the voice information; and
- a video device that processes the picture information stored in the memory for reproducing the visual image represented by the picture information.

Claims 39-59 (canceled)

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Claim ³⁸~~60~~ (currently amended): A base station for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the base station comprising:

a source of music information;

a selecting section that selects music information from the source in response to the request information transmitted from the portable terminal;

a setting section that sets the selected music information by configuration information effective to specify a timbre of a music tone determined by the selected music information; and

a transmitting section that transmits the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre;

wherein the portable terminal comprises a transmitting section that transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further comprising a receiving section for receiving the identification information together with the request information.

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Claim ³⁹~~61~~ (original): The base station according to claim ³⁹~~60~~, wherein the base station includes a charging section that charges the portable terminal for delivery of the selected the music information to the portable terminal.

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Claim ⁴⁰~~62~~ (currently amended): The base station according to claim ³⁹~~61~~, further comprising ~~a receiving section that receives identification information indicating a type of the portable terminal together with the request information,~~ a determining section that determines the type of the portable terminal according to the identification information, and a discount control section that controls the charging section to discount a charge if the portable terminal qualifies by the determined type.

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Claim ~~63~~ (currently amended): The base station according to claim ³⁹~~61~~, wherein the portable terminal includes a tone generator for generating a music tone, ~~the base station further comprising a receiving section that~~ and the receiving section of the base station receives identification information indicating a type of the tone generator equipped in the portable terminal together with the request information, the base station further comprising a determining section that determines the type of the tone generator equipped in the portable terminal according to the identification information, and a discount control section that controls the charging section to discount a charge if the tone generator equipped in the portable terminal qualifies by the determined type.

⁴²
Claim ~~64~~ (currently amended): The base station according to claim ³⁸~~60~~, wherein the transmitting section downsizes at least one of the music information and the configuration information so that a memory of the portable terminal having a limited capacity can store the music information or the configuration information in a compact format which is downsized from a non-compact format of the music information and the configuration information.

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Claim ~~65~~ (original): The base station according to claim ⁴²~~64~~, wherein the transmitting section downsizes the music information in a compact format from a non-compact format of a standard MIDI file.

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Claim ~~66~~ (original): The base station according to claim ³⁸~~60~~, further comprising a determining section that determines a format type of the selected music information.

Claim 67 (canceled)

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Claim ~~68~~ (currently amended): The base station according to ³⁸~~claim 60~~ ~~claim 67~~, further comprising a first determining section that determines a format type of the selected music information, and a second determining section that operates based on the determined format type of the selected music information and the model type of the portable terminal indicated by the received identification information for determining whether the selected music information is valid in the portable terminal.

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Claim ~~69~~ (original): The base station according to claim ⁴⁵~~68~~, further comprising a converting section that converts the format type of the selected music information if the second determining section determines that the selected music information is not valid in the portable terminal.

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Claim ~~70~~ (original): The base station according to claim ⁴⁶~~69~~, wherein the converting section converts the format type of the selected music information by means of a conversion table.

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Claim ~~71~~ (original): The base station according to claim ³⁸~~60~~, wherein the portable terminal has a tone generator for generating a music tone, the base station further comprising a receiving section that receives identification information indicative of a model type of the tone generator equipped in the portable terminal together with the request information.

⁴⁹
Claim ~~72~~ (original): The base station according to claim ⁴⁸~~71~~, further comprising a first determining section that determines a format type of the selected music information, and a second determining section that operates based on the determined format type of the selected music information and the model type of the tone generator indicated by the received identification information for determining whether the selected music information is valid in the tone generator equipped in the portable terminal.

Claim ⁵⁰~~73~~ (original): The base station according to claim ⁴⁹~~72~~, further comprising a converting section that converts the format type of the selected music information if the second determining section determines that the selected music information is not valid in the tone generator of the portable terminal.

Claim ⁵¹~~74~~ (original): The base station according to claim ⁵⁰~~73~~, wherein the converting section converts the format type of the selected music information by means of a conversion table.

Claim ⁵²~~75~~ (original): The base station according to claim ³⁸~~60~~, wherein the setting section sets the selected music information by configuration information effective to specify a predetermined timbre.

Claim ⁵³~~76~~ (original): The base station according to claim ³⁸~~60~~, wherein the setting section sets the selected music information by configuration information effective to specify a timbre, which is selected by a user command.

Claim ⁵⁴~~77~~ (original): The base station according to claim ³⁸~~60~~, wherein the setting section sets the selected music information by configuration information effective to specify a timbre, which is automatically detected according to the selected music information.

Claim ⁵⁵~~78~~ (original): The base station according to claim ³⁸~~60~~, wherein the portable terminal has a telephony section that can perform a telephony communication, and wherein the transmitting section of the base station can transmit the configuration information together with the selected music information at the time of performing the telephony communication.

Claim ⁵⁶~~79~~ (currently amended): A base station for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the base station comprising:

a source of a plurality of music information;

a selecting section that selects music information from the source in response to the request information transmitted from the portable terminal;

a setting section that sets the selected music information by configuration information effective to specify a timbre and an effect applied to a music tone determined by the selected music information; and

a transmitting section that transmits the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre and the specified effect;

wherein the portable terminal comprises a transmitting section that transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further comprising a receiving section for receiving the identification information together with the request information.

Claims 80-118 (canceled)

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Claim ~~119~~ (previously presented): The sound control apparatus according to claim 1, wherein the storage section stores the music information having a parameter characterizing the music tone and the portable terminal has a display for displaying the parameter, the apparatus further comprising an editing device that edits the displayed parameter to modify the music tone.

Claim 120-130 (canceled)

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Claim ~~131~~⁵⁷ (previously presented): The sound control apparatus according to claim 1, further comprising a tempo designating section that designates a tempo of the music tone, and a tempo control section that operates based on the stored music information and controls the generating of the music tone at the designated tempo.

{ Claims 132-291 (canceled)

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Claim ~~292~~⁵⁷ (currently amended): A sound control method in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, comprising the steps of:

C storing music information representing a music tone and configuration information associated to a timbre of the music tone in a memory, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are a part of parameters involved in a standard MIDI file format;

acquiring the music information and the configuration information from the memory upon receipt of the telephone call by the portable terminal; and

configuring a tone generating section by the acquired configuration information to create a timbre specified by the configuration information; and

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre to thereby provide the ringing melody wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

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Claim ⁶⁰~~293~~ (currently amended): A method of sound control in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, comprising the steps of:

storing music information representing a music tone and configuration information associated to a timbre and an effect of the music tone, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are a part of parameters involved in a standard MIDI file format;

acquiring the music information and the configuration information from the memory upon receipt of the telephone call by the portable terminal;

configuring a tone generator by the acquired configuration information to create a timbre specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre; and

configuring an effector by the configuration information for applying an effect specified by the configuration information to the generated music tone to thereby provide the ringing melody wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

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Claim ~~294~~ (currently amended): A sound control method in a portable terminal, having a first processor and a system bus, for sounding a music tone in association with various operations of the portable terminal, including a telephony operation and a display operation, which are executed by the first processor, the sound control method comprising the steps of:

memorizing music information representing a music tone and configuration information associated to a timbre of the music tone, said music information and configuration information transmitted from an external source through the system bus and a communication interface connectable to the system bus;

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acquiring the music information and the configuration information from the memory;

configuring a tone generator by the acquired configuration information to create a timbre specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

using a second processor provided separately from the first processor for controlling the memory, the communication interface and the tone generator.

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Claim ~~295~~ (currently amended): A sound control method in a portable terminal, having a first processor and a system bus, for sounding a music tone in association with various operations of the portable terminal, including a telephony operation and a display operation, which are executed by the first processor, the sound control method comprising the steps of:

memorizing music information representing a music tone and configuration information associated to a timbre and an effect of the music tone in a memory, said music information and configuration information transmitted from an external source through the system bus and a communication interface connectable to the system bus;

acquiring the music information and the configuration information from the memory;

configuring a tone generator by the acquired configuration information to create a timbre and an effect specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre and the effect wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

using a second processor provided separately from the first processor for controlling the memory, the communication interface and the tone generator.

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Claim ~~296~~ (original): A method of using a portable terminal, comprising the steps of:
operating a communication device that transmits and receives various information;
storing various information including music information representative of a music tone,
configuration information associated to a timbre of the music tone, and voice information
representative of a speech voice;

configuring a tone generator according to the configuration information for generating the
music tone according to the music information with the timbre specified by the configuration
information; and

operating an audio device for processing the voice information stored in the memory so as to
reproduce the speech voice represented by the voice information.

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Claim ~~297~~ (currently amended): A method of operating a portable terminal, comprising
the steps of:

operating a communication device that transmits and receives various information including
a telephone call from a telephone set;

storing various information in a memory including music information representative of a
music tone, configuration information associated to a timbre of the music tone, and picture
information representative of a visual image wherein the memory stores the music information in a
compact format which is downsized from a non-compact format of a standard MIDI file;

configuring a tone generator according to the configuration information for generating the
music tone according to the music information with the timbre specified by the configuration
information; and

operating a video device to process the picture information stored in the memory upon
receipt of the telephone call by the communication device for reproducing the visual image
represented by the picture information.

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Claim ~~298~~ (original): A method of operating a portable terminal, comprising the steps of:
operating a communication device that transmits and receives various information;
operating a memory to store various information including music information representative of a music tone, configuration information associated to a timbre and an effect of the music tone, voice information representative of a speech voice, and picture information representative of a visual image;

configuring a tone generator according to the configuration information for generating the music tone according to the music information with the timbre and the effect specified by the configuration information;

operating an audio device to process the voice information stored in the memory for reproducing the speech voice represented by the voice information; and

operating a video device that processes the picture information stored in the memory for reproducing the visual image represented by the picture information.

Claims 299-300 (canceled)

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Claim ~~301~~ (currently amended): A method of operating a base station for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the method comprising the steps of:

selecting music information from an information source in response to the request information transmitted from the portable terminal;

setting the selected music information by configuration information effective to specify a timbre of a music tone determined by the selected music information; and

transmitting the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre wherein the portable terminal transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further receiving the identification information together with the request information.

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Claim 302 (currently amended): A method of operating a base station for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the method comprising the steps of:

selecting music information from an information source in response to the request information transmitted from the portable terminal;

setting the selected music information by configuration information effective to specify a timbre and an effect applied to a music tone determined by the selected music information; and

transmitting the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre and the specified effect wherein the portable terminal transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further receiving the identification information together with the request information.

Claims 303-309 (canceled)

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⁵⁷ Claim 310 (currently amended): ~~A method~~ The sound control method according to claim 292 wherein the step of storing stores the music information having a parameter characterizing the music tone and the portable terminal has a display for displaying the parameter, said method further comprising editing the displayed parameter to modify the music tone ~~of operating a portable terminal apparatus having a first capability of transmitting and receiving various information, and a second capability of generating a music tone in association with the first capability according to music information, the method comprising the steps of:~~

~~operating a memory to memorize the music information having a parameter characterizing the music tone;~~

~~displaying the parameter of the music information; and~~

~~editing the displayed parameter to modify the music tone.~~

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57 Claim 311 (currently amended): ~~A method~~ The sound control method according to claim 292 further comprising designating a tempo of the music tone and generating the music tone based on the stored music information at the designated tempo of operating a portable terminal apparatus having a first capability of transmitting and receiving various information, and a second capability of generating a music tone in association with the first capability according to music information, the method comprising the steps of:

operating a memory for memorizing the music information representing the music tone;
designating a tempo of the music tone; and
generating the music tone based on the memorized music information at the designated tempo.

Claims 312-326 (canceled)

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Claim ~~327~~ (currently amended): A machine readable medium for use in a sound control apparatus having a processor and being provided in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, the medium containing program instructions executable by the processor for causing the sound control apparatus to perform a method comprising the steps of:

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storing music information representing a music tone and configuration information associated to a timbre of the music tone in a memory, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are part of parameters involved in a standard MIDI file format;

acquiring the music information and the configuration information from the memory upon receipt of the telephone call by the portable terminal; and

configuring a tone generating section by the acquired configuration information to create a timbre specified by the configuration information; and

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre to thereby provide the ringing melody wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

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Claim 328 (currently amended): A machine readable medium for use in a sound control apparatus having a processor and provided in a portable terminal, operative of receiving a telephone call from a telephone set, for sounding a music tone to provide a ringing melody in association with operation of the portable terminal, the medium containing program instructions executable by the processor for causing the sound control apparatus to perform a method comprising the steps of:

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storing music information representing a music tone and configuration information associated to a timbre and an effect of the music tone, the music information containing data necessary to determine a pitch and a timing of the music tone, the configuration information containing a set of parameters which are necessary to determine the timbre of the music tone and which are part of parameters involved in a standard MIDI file format;

acquiring the music information and the configuration information from the memory upon receipt of the telephone call by the portable terminal;

configuring a tone generator by the acquired configuration information to create a timbre specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre; and

configuring an effector by the configuration information for applying an effect specified by the configuration information to the generated music tone to thereby provide a ringing melody wherein the tone generating section is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres.

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Claim 329 (currently amended): A machine readable medium for use in a sound control apparatus having a sub processor and provided in a portable terminal, said portable terminal having a main processor and a system bus, for sounding a music tone in association with various operations ~~operation~~ of the portable terminal, including a telephony operation and a display operation, which are executed by the ~~is executed by~~ a main processor, the medium containing program instructions executable by the sub processor for causing the sound control apparatus to perform a method comprising the steps of:

01 memorizing music information representing a music tone and configuration information associated to a timbre of the music tone, said music information and configuration information transmitted from an external source through the system bus and a communication interface connectable to the system bus;

acquiring the music information and the configuration information from the memory;
configuring a tone generator by the acquired configuration information to create a timbre specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

using the sub processor provided separately from the main processor exclusively for controlling the memory, the communication interface and the tone generator.

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Claim 330 (currently amended): A machine readable medium for use in a sound control apparatus having a sub processor and provided in a portable terminal, said portable terminal having a main processor and a system bus, for sounding a music tone in association with various operations operation of the portable terminal, including a telephony operation and a display operation, which are executed by the ~~is executed by~~ a main processor, the medium containing program instructions executable by the sub processor for causing the sound control apparatus to perform a method comprising the steps of:

① memorizing music information representing a music tone and configuration information associated to a timbre and an effect of the music tone in a memory, said music information and configuration information transmitted from an external source through the system bus and a communication interface connectable to the system bus;

acquiring the music information and the configuration information from the memory;

configuring a tone generator by the acquired configuration information to create a timbre and an effect specified by the configuration information;

operating the tone generator according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre and the effect wherein the tone generator is configured to create different timbres and is operated to concurrently generate a plurality of music tones having the different timbres; and

using the sub processor provided separately from the main processor exclusively for controlling the memory, the communication interface and the tone generator.

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Claim 33~~1~~ (original): A machine readable medium for use in a portable terminal having a processor, the medium containing program instructions executable by the processor for causing the portable terminal to perform a method comprising the steps of:

operating a communication device that transmits and receives various information;

storing various information including music information representative of a music tone, configuration information associated to a timbre of the music tone, and voice information representative of a speech voice;

configuring a tone generator according to the configuration information for generating the music tone according to the music information with the timbre specified by the configuration information; and

operating an audio device for processing the voice information stored in the memory so as to reproduce the speech voice represented by the voice information.

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Claim 33~~2~~ (currently amended): A machine readable medium for use in a portable terminal having a processor, the medium containing program instructions executable by the processor for causing the portable terminal to perform a method comprising the steps of:

operating a communication device that transmits and receives various information including a telephone call from a telephone set;

storing various information in a memory including music information representative of a music tone, configuration information associated to a timbre of the music tone, and picture information representative of a visual image wherein the memory stores the music information in a compact format which is downsized from a non-compact format of a standard MIDI file;

configuring a tone generator according to the configuration information for generating the music tone according to the music information with the timbre specified by the configuration information; and

operating a video device to process the picture information stored in the memory upon receipt of the telephone call by the communication device for reproducing the visual image represented by the picture information.

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Claim 333 (original): A machine readable medium for use in a portable terminal having a processor, the medium containing program instructions executable by the processor for causing the portable terminal to perform a method comprising the steps of:

operating a communication device that transmits and receives various information;

operating a memory to store various information including music information representative of a music tone, configuration information associated to a timbre and an effect of the music tone, voice information representative of a speech voice, and picture information representative of a visual image;

configuring a tone generator according to the configuration information for generating the music tone according to the music information with the timbre and the effect specified by the configuration information;

operating an audio device to process the voice information stored in the memory for reproducing the speech voice represented by the voice information; and

operating a video device that processes the picture information stored in the memory for reproducing the visual image represented by the picture information.

Claims 334-335 (canceled)

⁷⁶
Claim 3~~86~~ (currently amended): A machine readable medium for use in a base station having a processor for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the medium containing program instructions executable by the processor for causing the base station to perform a method comprising the steps of:

selecting music information from an information source in response to the request information transmitted from the portable terminal;

setting the selected music information by configuration information effective to specify a timbre of a music tone determined by the selected music information; and

transmitting the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre wherein the portable terminal transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further receiving the identification information together with the request information.

7-7
Claim ~~337~~ (currently amended): A machine readable medium for use in a base station for receiving request information from a portable terminal and for transmitting music information to the portable terminal in response to the request information, the medium containing program instructions executable by the processor for causing the base station to perform a method comprising the steps of:

selecting music information from an information source in response to the request information transmitted from the portable terminal;

setting the selected music information by configuration information effective to specify a timbre and an effect applied to a music tone determined by the selected music information; and

transmitting the selected music information together with the configuration information to the portable terminal so that the portable terminal can generate the music tone having the specified timbre and the specified effect wherein the portable terminal transmits identification information indicative of a model type of the portable terminal together with the request information to the base station, the base station further receiving the identification information together with the request information.

Claims 338-344 (canceled)

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Claim ⁶⁸345 (currently amended): ~~A machine readable medium~~ The machine readable medium according to claim 327 wherein the step of storing stores the music information having a parameter characterizing the music tone and the portable terminal has a display for displaying the parameter, said method further comprising editing the displayed parameter to modify the music tone for use in a portable terminal apparatus having a processor to provide a first capability of transmitting and receiving various information, and a second capability of generating a music tone in association with the first capability according to music information, the medium containing program instructions executable by the processor for causing the portable terminal apparatus to perform a method comprising the steps of:

operating a memory to memorize the music information having a parameter characterizing the music tone;

displaying the parameter of the music information; and

editing the displayed parameter to modify the music tone.

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Claim ⁶⁸346 (currently amended): ~~A machine readable medium~~ The machine readable medium according to claim 327, said method further comprising designating a tempo of the music tone and generating the music tone based on the stored music information at the designated tempo for use in a portable terminal apparatus having a processor to provide a first capability of transmitting and receiving various information, and a second capability of generating a music tone in association with the first capability according to music information, the medium containing program instructions executable by the processor for causing the portable terminal apparatus to perform a method comprising the steps of:

operating a memory for memorizing the music information representing the music tone;

designating a tempo of the music tone; and

generating the music tone based on the memorized music information at the designated tempo.

C
Claims 347-361 (canceled)

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Claim ³⁴362 (previously presented): The portable terminal apparatus according to claim 32, wherein the audio device reproduces the speech voice represented by the voice information at the same time when the sound control device generates the music tone according to the music information.
